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December 20, 2023

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The following is a summary of findings from the December 2023 WEEK 2 vibration survey at the H2O2 Plant that was performed on December 15, 2023.

QualiTest® uses a four step rating system for defects.

**<u>CLASS I</u>**: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

**<u>CLASS II</u>**: Defect (s) present that may cause problem in long term (2-6 months). Repair during normal maintenance scheduling. Continue to monitor.

**<u>CLASS III</u>**; Defect (s) present that may cause failure in short term (less than 2 months). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

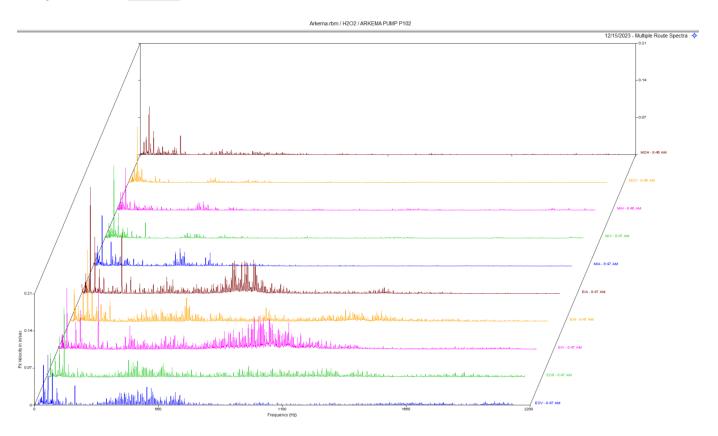
**<u>CLASS IV</u>**: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

*Hi-Speed* Industrial Service tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

# **Defect Summary**

### WEEK 2 H2O2 Plant

### Pump 102 P102 CLASS I



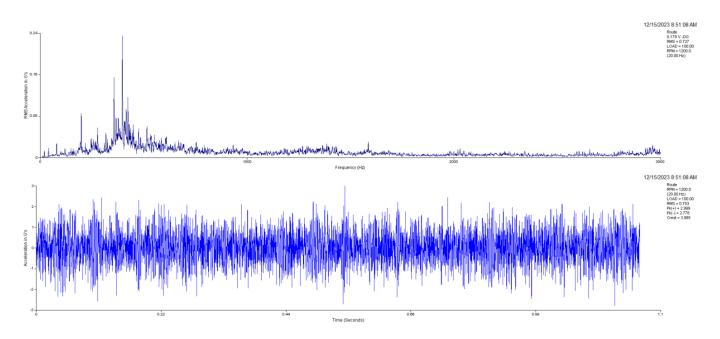
#### **Observation:**

Data above is a multipoint spectral waterfall. Pump data shows a 2 x rpm peak with multiple pump rpm harmonics throughout the pump spectra.

### **Recommendation:**

The pump appears to have possible internal wear beginning to occur. The higher vibration in the axial direction may indicate excessive axial clearances. We are monitoring this very closely.

## C Concentrator Vacuum Pump CLASS I



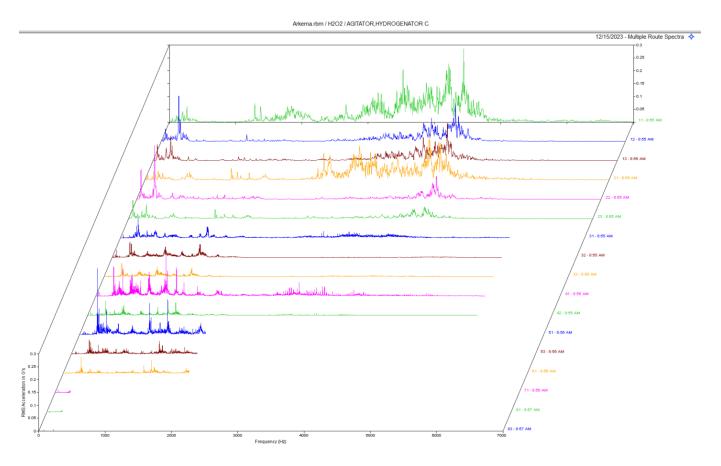
### **Observation:**

Data above is the pump drive end horizontal. The small peaks in mid to high range of the spectrum are nonsynchronous peaks and are very likely bearing defect frequencies.

### **Recommendation:**

The pump appears to have early to mid-stage bearing defects/wear. We are monitoring this issue closely.

## Agitator, Hydrogenator C CLASS I



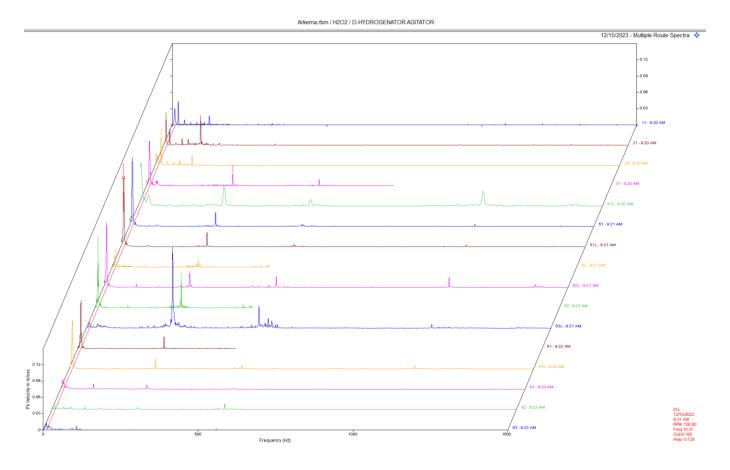
#### **Observation:**

Data above is a multipoint spectral waterfall. Data still shows some noise floor in the motor data. Data points labeled 11-23.

#### **Recommendation:**

Motor data still suggests a possible issue in the motor. May be rolling element defects in bearings. This issue appears to be minor at this time and we are monitoring this closely.

### D Hydrogenator Agitator CLASS II



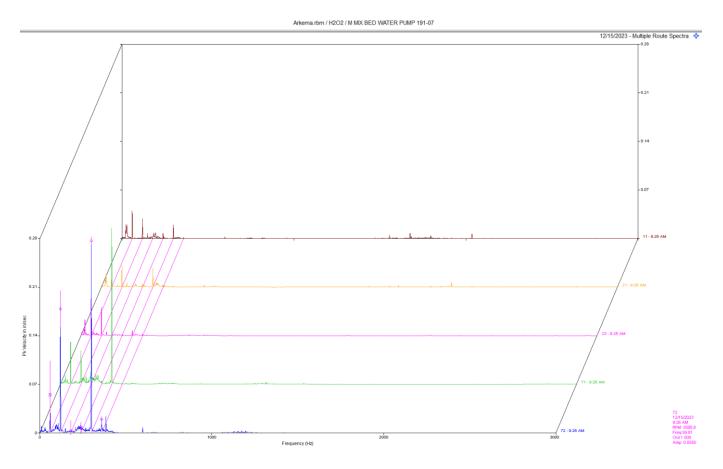
#### **Observation:**

Data above is a multi-point spectra of the motor and gear drive. There is quite a bit of low frequency vibration in the gear drive. Spectral and waveform data shows a dominant low frequency vibration that is likely a harmonic of output speed of the gearbox. Gearbox does appear to have visible torsional movement. There is also some gear mesh harmonics on the output axial that have increased in amplitude.

#### **Recommendation:**

Ensure output shaft does not excessive shaft defection. Check coupling hubs and shaft for run out using a dial indicator. Will continue to monitor closely.

### Middle Mix Bed Water Pump 191-07 CLASS I



#### **Observation:**

Multi-point data shows some higher vibration in the pump particularly in the pump vertical direction. Data shows a high 2 x rpm and a 5 x rpm vibration in the pump vertical spectrum.

#### **Recommendation:**

Pump may have some process issues causing some vane pass vibration. The 2 x rpm vibration may be a coupling or shaft issue. Vibration amplitude in the pump vertical is just at low alarm level. We are monitoring this closely.

#### 

Database:	Ark	ema.rbm	
Station:	PER	OXIDE	
Route No.	2:	ARK WK	2

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
P102 - ARKEMA PUMP P10	2 (15-	-Dec-23)
	OVERALL LEVEL	
МОН	.135 In/Sec	.395 G-s
MOV	.128 In/Sec	
MIH		.782 G-s
MIV	.120 In/Sec .170 In/Sec	.988 G-s
MIA	.156 In/Sec	
EIA	201 Tm/Con	577 C a
	.391 In/Sec .277 In/Sec	3.034 G-s
EIH	.400 In/Sec	3.034 G-S
EIV	.400 In/Sec	1.830 G-S
EOH	.247 In/Sec	1.815 G-s
EOV	.213 In/Sec	1.487 G-s
2130-1old - C Concentrator		
	OVERALL LEVEL .057 In/Sec	1-20 KHz
11		
21	.069 In/Sec	
23	.095 In/Sec .139 In/Sec	.178 G-s
71	.139 In/Sec	2.159 G-s
81	.179 In/Sec	
83	.147 In/Sec	.737 G-s
7000-01 - AGITATOR, HYDROG	ENATOR C (15-	-Dec-23)
	OVERALL LEVEL	1-20 KHZ
02	.040 In/Sec	.048 G-s .017 G-s
03	.040 In/Sec .037 In/Sec	.017 G-s
11	.076 In/Sec	1 809 6-8
12		
13	.122 In/Sec .116 In/Sec	.664 G-s
21	.073 In/Sec	1.449 G-s
22	.214 In/Sec	.388 G-s
23	.127 In/Sec	.290 G-s
31	.085 In/Sec	
32	.094 In/Sec	
33	059 Tn/Sec	173 C-e
41	.102 In/Sec	.638 G-s
42	.066 In/Sec	222 G-s
51	.124 In/Sec	.222 G S
53	.051 In/Sec	.574 G-s .173 G-s
61	.038 In/Sec	.173 G-S
71	.045 In/Sec	.765 G-s
81	.022 In/Sec	.417 G-s
83	.032 In/Sec	.210 G-s
57 - A/B Concentr Va	c Pmp-var RPM (15-	•
	OVERALL LEVEL	1-20 KHz
11	.051 In/Sec	.570 G-s
12	.059 In/Sec	.371 G-s
21	.099 In/Sec	.391 G-s
23	.060 In/Sec	.171 G-s
71	.162 In/Sec	.488 G-s
81	.209 In/Sec	1.468 G-s
83	.074 In/Sec	1.471 G-s

2130-1		_	FLASH	VAP	VAC	PUMP-var	speed	(15-Dec-23)
						OVERA	LL LEVEL	1-20 KHz
	11					.069	In/Sec	.260 G-s
	12					.050	In/Sec	.080 G-s
	21					.043	In/Sec	.702 G-s
	22					.047	In/Sec	.265 G-s
	23					.051	In/Sec	.171 G-s
	71					.078	In/Sec In/Sec	.988 G-s
	72							
	81					.085	In/Sec	1.993 G-s
	82					.085	In/Sec In/Sec	.734 G-s
	83					.052	In/Sec	.534 G-s
C-203		-	C-203	Com	þ			(15-Dec-23)
							LL LEVEL	
	11					.061	In/Sec	2.959 G-s
	12					.029	In/Sec	.898 G-s
	21						In/Sec	
	22					.023	In/Sec	.260 G-s
	23					.026	In/Sec	.299 G-s
	71M					OVERAL	LL LEVEL In/Sec	1-20 КНZ 4.877 G-s
	72M							4.877 G-S 1.168 G-S
	73M							
	81M					055	In/Sec In/Sec	7.631 G-s
	82M							1.126 G-s
	71F					.052	In/Sec	4.062 G-s
	72F					.051	In/Sec	1.314 G-s
	73F						In/Sec	
	81F					.047	In/Sec	7.426 G-s
	82F						In/Sec	
C-202		-	C-202	Com	p			(15-Dec-23)
						OVERAL	LL LEVEL	1-20 KHz
	11						In/Sec	
	12						In/Sec	
	21					.078	In/Sec	1.491 G-s
	21 22					.078 .059	In/Sec In/Sec	1.491 G-s .650 G-s
	21					.078 .059 .052	In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s
	21 22 23					.078 .059 .052 OVERAI	In/Sec In/Sec In/Sec LL LEVEL	1.491 G-s .650 G-s .504 G-s 1-20 KHZ
	21 22 23 71M					.078 .059 .052 OVERAI .062	In/Sec In/Sec In/Sec LL LEVEL In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s
	21 22 23					.078 .059 .052 OVERAI .062 .053	In/Sec In/Sec In/Sec LL LEVEL In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s
	21 22 23 71M 72M 73M					.078 .059 .052 OVERAJ .062 .053 .095	In/Sec In/Sec In/Sec LL LEVEL In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s
	21 22 23 71M 72M					.078 .059 .052 OVERAI .062 .053 .095 .053	In/Sec In/Sec In/Sec LL LEVEL In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s
	21 22 23 71M 72M 73M 81M					.078 .059 .052 OVERAI .062 .053 .095 .053 .058	In/Sec In/Sec In/Sec LL LEVEL In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s
	21 22 23 71M 72M 73M 81M 82M					.078 .059 .052 OVERAI .062 .053 .055 .053 .058 .043 .065	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s
	21 22 23 71M 72M 73M 81M 82M 71F					.078 .059 .052 OVERAI .062 .053 .055 .053 .058 .043 .065 .040	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s
	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F					.078 .059 .052 .062 .053 .095 .053 .058 .043 .065 .040 .044	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s
	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F					.078 .059 .052 .062 .053 .095 .053 .058 .043 .065 .040 .044	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F		C-201	Com	D	.078 .059 .052 .062 .053 .095 .053 .058 .043 .065 .040 .044	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F		C-201	Comp	ρ	.078 .059 .052 OVERAI .062 .053 .053 .053 .058 .043 .065 .040 .044 .054	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23)
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F		C-201	Comj	ρ	.078 .059 .052 .062 .053 .095 .053 .058 .043 .065 .040 .044 .054	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F		C-201	Comj	p	.078 .059 .052 OVERAJ .062 .053 .053 .053 .043 .065 .040 .044 .054 OVERAJ .130 .056	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz 3.776 G-s .840 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F		C-201	Comj	P	.078 .059 .052 OVERAJ .062 .053 .055 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz 3.776 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22		C-201	Comj	ρ	.078 .059 .052 OVERAJ .062 .053 .053 .053 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz 3.776 G-s .840 G-s 1.249 G-s .445 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21		C-201	Comj	ρ	.078 .059 .052 OVERAJ .062 .053 .053 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040 .059	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23	_	C-201	Comj	ρ	.078 .059 .052 OVERAJ .062 .053 .053 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040 .059 OVERAJ	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHz 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1-20 KHZ
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M	_	C-201	Comj	p	.078 .059 .052 OVERAJ .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040 .059 OVERAJ .084	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1-20 KHZ 5.252 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M 72M	_	C-201	Comj	p	.078 .059 .052 OVERAJ .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .056 .104 .059 OVERAJ .084 .050	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1-20 KHZ 5.252 G-s 1.573 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M 72M 73M	_	C-201	Comj	ρ	.078 .059 .052 OVERAJ .062 .053 .095 .053 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .056 .104 .059 OVERAJ .084 .050 .087	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.20 KHZ 5.252 G-s 1.573 G-s 1.215 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M 72M 73M 81M	_	C-201	Comj	ρ	.078 .059 .052 OVERAJ .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .056 .104 .059 OVERAJ .084 .050 .087 .049	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.20 KHZ 5.252 G-s 1.573 G-s 1.215 G-s 6.436 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M 72M 73M 81M 82M	_	C-201	Comj	ρ	.078 .059 .052 OVERAI .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAI .130 .056 .104 .056 .104 .059 OVERAI .084 .059 OVERAI .084 .050 .087 .049 .037	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.225 G-s 1.573 G-s 1.215 G-s 6.436 G-s .934 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 73F 81F 82F 11 12 21 22 23 71M 72M 73M 81M 82M	_	C-201	Comj	P	.078 .059 .052 OVERAI .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAI .130 .056 .104 .059 OVERAI .084 .059 OVERAI .084 .050 .087 .049 .037 .038	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.20 KHZ 5.252 G-s 1.573 G-s 1.215 G-s 6.436 G-s .934 G-s .934 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 81F 82F 11 12 21 22 23 71M 72M 73M 81M 82M 72F	_	C-201	Comj	P	.078 .059 .052 OVERAI .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAI .130 .056 .104 .040 .059 OVERAI .084 .059 OVERAI .084 .050 .087 .049 .037 .038 .074	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.249 G-s .445 G-s .430 G-s 1.20 KHZ 5.252 G-s 1.573 G-s 1.215 G-s 6.436 G-s .934 G-s .934 G-s 1.902 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 81F 82F 11 12 21 22 23 71M 72M 73M 81M 82M 72F 73F	_	C-201	Comj	p	.078 .059 .052 OVERAJ .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040 .059 OVERAJ .084 .050 .087 .084 .037 .038 .074 .039	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.249 G-s 1.249 G-s .445 G-s .430 G-s 1.215 G-s 6.436 G-s .934 G-s 1.915 G-s 1.902 G-s 1.902 G-s 1.191 G-s
C-201	21 22 23 71M 72M 73M 81M 82M 71F 72F 81F 82F 11 12 21 22 23 71M 72M 73M 81M 82M 72F	_	C-201	Com	P	.078 .059 .052 OVERAJ .062 .053 .095 .053 .058 .043 .065 .040 .044 .054 OVERAJ .130 .056 .104 .040 .059 OVERAJ .084 .059 OVERAJ .084 .050 .087 .084 .037 .038 .074 .039 .048	In/Sec In/Sec	1.491 G-s .650 G-s .504 G-s 1-20 KHZ 4.089 G-s 1.087 G-s .991 G-s 5.065 G-s 1.268 G-s 3.217 G-s .894 G-s .840 G-s 5.393 G-s 1.727 G-s (15-Dec-23) 1-20 KHZ 3.776 G-s .840 G-s 1.249 G-s .445 G-s .430 G-s 1.249 G-s .445 G-s .430 G-s 1.20 KHZ 5.252 G-s 1.573 G-s 1.215 G-s 6.436 G-s .934 G-s .934 G-s 1.902 G-s

new AC	-	INSTRUMENT AIR	COMPRESSOR	(15-Dec-23)
			OVERALL LEVEL	
11			.098 In/Sec	
12			.103 In/Sec	
13			.053 In/Sec	
21			.076 In/Sec	
22			.077 In/Sec	
23	3		.037 In/Sec	
71			OVERALL LEVEL	
	LF 2F		.117 In/Sec .091 In/Sec	
	2F 3F		.069 In/Sec	2.464 G-s
81			.141 In/Sec	
82			.140 In/Sec	
83			.288 In/Sec	
	LM		.105 In/Sec	6.920 G-s
	2M		.096 In/Sec	2.943 G-s
	ЗМ		.104 In/Sec	
81			.188 In/Sec	
	2M		.347 In/Sec	
-	Зм		.333 In/Sec	
201-08A	-	COMPRESSOR, NAS	H A 201-08A OVERALL LEVEL	
11	I		.057 In/Sec	
12			.037 IN/Sec	.177 G-S .187 G-S
13			.133 In/Sec	.187 G-s .237 G-s
21			.055 In/Sec	
22			.035 In/Sec	
23			.041 In/Sec	
71			.158 In/Sec	
72			.132 In/Sec	.107 G-s
73			.229 In/Sec	
81			.115 In/Sec	
82			.189 In/Sec	
83			.172 In/Sec	.107 G-s
202-05		NASH SEAL LIQU	ID PUMP-A	(15-Dec-23)
	-	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL	(15-Dec-23) 1-20 KHz
11	- L	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL .017 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s
11 21	- L L	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s
11 21 23	- L L 3	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s
11 21 23 71	– L L 3 L	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s
11 21 23	– L L 3 L	NASH SEAL LIQU	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s
11 21 23 71 72	- L J J L 2	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23)
11 21 23 71 72 9002-10	- L 3 L 2 -	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz
11 23 71 72 9002-10 11	- L 3 L 2 -	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s
11 23 71 72 9002-10 11 21	- L J J L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s
11 23 71 72 9002-10 11	- L J J L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s
11 23 71 72 9002-10 11 21 23	- L 3 L 2 - L 3	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ
11 23 71 72 9002-10 11 21 23 31	- L 3 L 2 - L 1 3 L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s
11 23 71 72 9002-10 11 21 23 31	- L 3 L 2 - L 3	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s
11 23 71 72 9002-10 11 21 23 31 31	- L L L L L L L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz
11 23 71 72 9002-10 11 21 23 31 31 31 31	- L L - - L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec OVERALL LEVEL .189 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s
11 23 71 72 9002-10 11 23 31 31 31 51 51	- L L 2 - L L L 1 L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .112 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec .189 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s
11 23 71 72 9002-10 11 21 23 31 31 31 51 51 52	- L L L 2 - L L L L L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .012 In/Sec .112 In/Sec .189 In/Sec .189 In/Sec .058 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s
11 23 71 72 9002-10 11 21 23 31 31 31 51 52 52	- L L L 2 2 L L L L L L L L L L L L L 2 2 L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .112 In/Sec OVERALL LEVEL .153 In/Sec .189 In/Sec .189 In/Sec .058 In/Sec .156 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s
11 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53	- L L L 2 2 L L L L L L L L L L L L 2 2 L 3	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .012 In/Sec .112 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s
11 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53	- L L L 2 2 L L L L L L L L L L L L 2 2 L 3 3 3 L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .012 In/Sec .112 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .240 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53 61	- L L L 22 - L L L L L L L L L 22 L 3 3 L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec .112 In/Sec .112 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec .146 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .240 G-s .180 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53 61 61	- L L L 22 - L L L L L L L L 22 L 3 3 L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .089 In/Sec .012 In/Sec .112 In/Sec .112 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec .135 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .240 G-s .180 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53 61 61 81	- L L L 22 - L L L L L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec .112 In/Sec OVERALL LEVEL .153 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec .135 In/Sec .038 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .240 G-s .180 G-s .180 G-s .031 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53 61 61 81 82	- L L L 2 2 L L L L L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .180 G-s .180 G-s .031 G-s .043 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 53 53 61 61 81	- L L L 2 2 L L L L L L L L L L L L L L	_	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec .112 In/Sec OVERALL LEVEL .153 In/Sec .189 In/Sec .156 In/Sec .220 In/Sec .210 In/Sec .135 In/Sec .038 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .227 G-s .366 G-s .531 G-s .218 G-s .180 G-s .180 G-s .031 G-s .043 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 31 51 52 52 53 53 61 61 81 82 83	- L L L L 22 - L L L L L L L L L L L L L L L L L L L	D-HYDROGENATOR	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec .156 In/Sec .156 In/Sec .210 In/Sec .135 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .030 In/Sec .030 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .228 G-s .218 G-s .240 G-s .180 G-s .180 G-s .180 G-s .031 G-s .043 G-s .011 G-s (15-Dec-23)
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 52 53 53 61 61 81 82 83 9003-01	- L L L L L L L L L L L L L L L L L L L	D-HYDROGENATOR	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec .089 In/Sec .112 In/Sec .121 In/Sec .189 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .210 In/Sec .146 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .030 In/Sec .030 In/Sec .030 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHZ .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .228 G-s .218 G-s .240 G-s .180 G-s .180 G-s .031 G-s .043 G-s .043 G-s .011 G-s (15-Dec-23) 1-20 KHz
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 52 53 53 61 61 81 82 83 9003-01		D-HYDROGENATOR	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec OVERALL LEVEL .153 In/Sec .112 In/Sec .156 In/Sec .156 In/Sec .135 In/Sec .135 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .030 In/Sec .030 In/Sec .026 In/Sec .029 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .228 G-s .218 G-s .240 G-s .180 G-s .180 G-s .180 G-s .031 G-s .043 G-s .011 G-s (15-Dec-23) 1-20 KHz .697 G-s
11 21 23 71 72 9002-10 11 21 23 31 31 31 51 52 52 52 53 53 61 61 81 82 83 9003-01		D-HYDROGENATOR	ID PUMP-A OVERALL LEVEL .017 In/Sec .021 In/Sec .022 In/Sec .024 In/Sec .018 In/Sec AGITATOR OVERALL LEVEL .067 In/Sec .097 In/Sec .097 In/Sec .089 In/Sec .089 In/Sec .112 In/Sec .121 In/Sec .189 In/Sec .189 In/Sec .189 In/Sec .156 In/Sec .210 In/Sec .146 In/Sec .135 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .038 In/Sec .030 In/Sec .030 In/Sec .030 In/Sec	(15-Dec-23) 1-20 KHz .219 G-s .381 G-s .061 G-s .031 G-s .010 G-s (15-Dec-23) 1-20 KHz .347 G-s .210 G-s .063 G-s 1-20 KHZ .778 G-s .721 G-s 1-20 KHz .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .227 G-s .228 G-s .218 G-s .240 G-s .180 G-s .180 G-s .180 G-s .031 G-s .043 G-s .011 G-s (15-Dec-23) 1-20 KHz .697 G-s

23		.031 In/Sec	.177 G-s	
71		.102 In/Sec	.255 G-s	
72		.174 In/Sec	.233 G-s	
9001-01	- D-HYDRO SECO	OND. FILT FD PUMP (1	5-Dec-23)	
		OVERALL LEVEL	1-20 KHz	
11		.045 In/Sec	.423 G-s	
21		.050 In/Sec	.567 G-s	
23		.038 In/Sec	.298 G-s	
71		.086 In/Sec	.380 G-s	
72		.096 In/Sec		
192-03	- Two Stage Wa	ater Pump A-WEST (1	5-Dec-23)	
	_	OVERALL LEVEL		
11		.060 In/Sec	.638 G-s	
21		.068 In/Sec	.533 G-s	
23		.073 In/Sec	.285 G-s	
71		.154 In/Sec	.794 G-s	
72		.082 In/Sec		
191-07	- M MIX BED WA	ATER PUMP 191-07 (1	5-Dec-23)	
		OVERALL LEVEL	1-20 KHz	
11		.076 In/Sec	.636 G-s	
21		.065 In/Sec	1.684 G-s	
23		.093 In/Sec	.713 G-s	
71		.255 In/Sec	.495 G-s	
72		.365 In/Sec	.339 G-s	
Clarification	n Of Vibration (	Units:		
Acc -	> G-s PI	к		
Vel -	> In/Sec PI	к		

As always, it has been a pleasure to serve Arkema. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

Kevin W. Maxwell

ISO Certified Vibration Analyst, Category III



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